

REMARKS/ARGUMENTS

Applicants thank the Examiner for the thorough examination of claims 1 – 36 that are currently pending. In response to the Office Action dated July 6, 2004, Applicants again respectfully traverse the rejection of claims 1-36.

Rejection of Claims 1-36 under 35 U.S.C. § 103(a)

Claims 1-36 have been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Figure 7 of U.S. Patent No. 4,405,435 (Tateishi et al., hereinafter “Tateishi) in view of Pub. No. 2-152251; IDS Paper 6 Document (Mikio Takagi, hereinafter “Takagi”). The Examiner previously issued a final rejection of claims 1-36 under 35 U.S.C. § 103(a) as being unpatentable over Tateishi in view of Takagi. The prior final rejection is described in the Office Action dated July 1, 2003. More specifically, the Examiner previously rejected the claims over ***the embodiment disclosed in Fig. 4 of Tateishi*** in view of Takagi. Applicants appealed the final rejection, and they filed an Appeal Brief on April 29, 2004. In view of the Appeal Brief, the final rejection was withdrawn, and a new rejection was made in the Office Action dated July 6, 2004. Claims 1-36 have been again finally rejected over ***the embodiment disclosed in Fig. 7 of Tateishi*** in view of Takagi. The Applicants respectfully traverse the rejection.

The final rejection is based upon the Examiner’s belief that, “It would have been obvious to one of ordinary skill in the art at the time the invention was made to

reproduce Tateishi's module (Fig. 7), . . . where the plurality of modules are piled up in a substantially vertical direction." (See page 19 of the Office Action). Allegedly, the motivation for piling up the modules, as claimed by the Applicants, is provided in the Takagi reference. The Applicants respectfully disagree, and they believe that the Office Action fails to establish a *prima facie* case of obviousness.

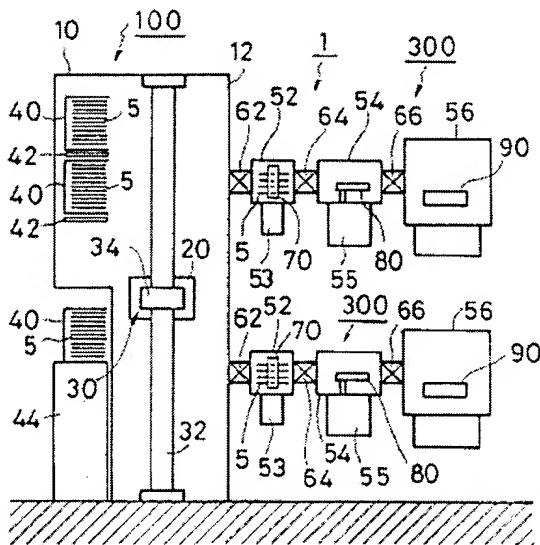
The Office Action Fails to Establish to a *Prima Facie* of Case of Obviousness

In order to establish a *prima facie* case of obviousness, a rejection made under 35 U.S.C. § 103 must meet three basic criteria. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Since the cited prior art fails to teach all of the claim elements, and since there is no motivation to arrange the claim elements in the same way as claimed by the Applicants, the Examiner is respectfully requested to withdraw the rejection of independent claims 1 and 14 under 35 U.S.C. § 103(a).

There are Missing Claim Features In Fig. 7 of Tateishi

The Office Action admits that Tateishi does not disclose "plural modules". (See page 17). The Applicants contend that certain claim features in claim 1, in addition to a plurality of modules, are not literally or inherently present in Fig. 7 of Tateishi. In order to identify and describe all the missing claim features of Fig. 7 of Tateishi, the Applicants have reproduced Fig. 1B of the present application, provided a table of selected missing claim features, and provided a description of the missing features as applied to claim 1. It should be noted that the missing claim features identified in the table are exemplary and that other unidentified missing claim features further distinguish the claims from the cited prior art.

FIG.1B



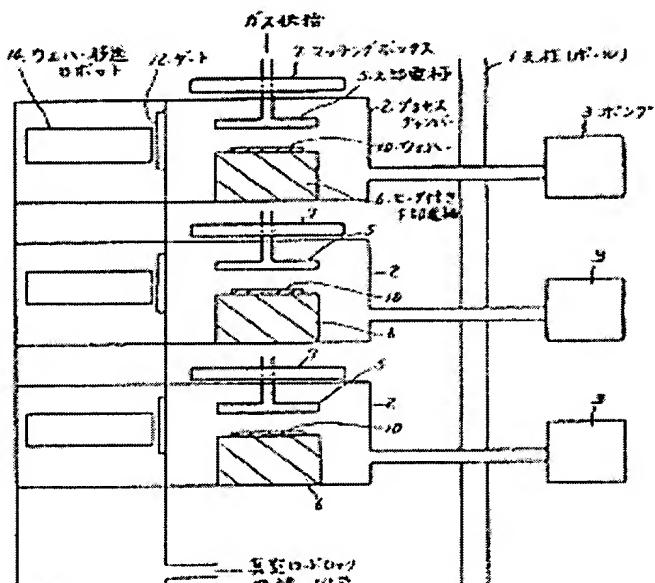
Claim Features of Claim 1 Missing from Fig. 7 of Tateishi	Description of Missing Claim Features
"a plurality of modules"	Applicants' Figure 1B clearly shows "a plurality of modules" [300] that are not present in Tateishi.
"each of said plurality of modules being directly detachably attached to said substrate transfer section"	From Applicants' Fig. 1B, it can be appreciated that the "modules" [300] are " detachably attached to said substrate transfer section [12]". Tateishi does not show detachably attached modules.
"a common first substrate transfer device provided in said substrate transfer section, for transferring substrates into said plurality of modules"	Applicants' Fig. 1B clearly illustrates a "a common first substrate transfer device 20". Tateishi does not include a common first substrate transfer device, because there is not a plurality of modules.
"said plurality of modules are piled up adjacent to, but spaced separately from one another in a substantially vertical direction such that said plurality of modules are capable of being attached to and detached from a wall of said substrate transfer section independent of one another "	Applicants' Fig. 1B clearly illustrates a plurality of modules that are piled up adjacent to, but spaced separately from one another in a substantially vertical direction . Tateishi neither discloses a plurality of modules that are piled up or spaced separately from one another. Fig. 1B clearly illustrates modules that are " attached to and detached from a wall of said substrate transfer section independent of one another ". Tateishi neither discloses a plurality of modules that are attached to and detached from a wall of said substrate transfer section independent of one another"

The Office Action notes that Tateishi does not disclose a plurality of modules, and it relies upon the Takagi publication to provide this missing claim feature. There are, however, several additional claim features that Takagi does not disclose.

Takagi Does Not Disclose All the Missing Claim Features

The Applicants respectfully submit that Takagi does not show all of the missing claim features or provide the motivation to arrange the claim features as set forth in

claim 1. Takagi's Fig. 1 is reproduced below, and a table is provided identifying the selected missing claim features and explaining why the claim features are missing.



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Features of Claim 1 Missing from Takagi	Explanation of Missing Claim Features
"each of said plurality of modules being directly detachably attached to said substrate transfer section"	There is no disclosure in Takagi that the modules are directly detachably attached to a substrate transfer station.
"a common first substrate transfer device provided in said substrate transfer section, for transferring substrates into said plurality of modules	Takagi does not include a common first transfer device, because there is a "transfer robot 14 in each stage position".
"said plurality of modules are piled up adjacent to, but spaced separately from one another in a substantially vertical direction such that said plurality of modules are capable of being attached to and detached from a wall of said substrate transfer section independent of one another"	Takagi may show a plurality of modules, but the modules are not shown spaced separately from one another in a substantially vertical direction. Accordingly the claimed spacing is missing. Takagi also does not show that the modules are capable of being attached to and detached from a wall of said substrate transfer section independent of one another.

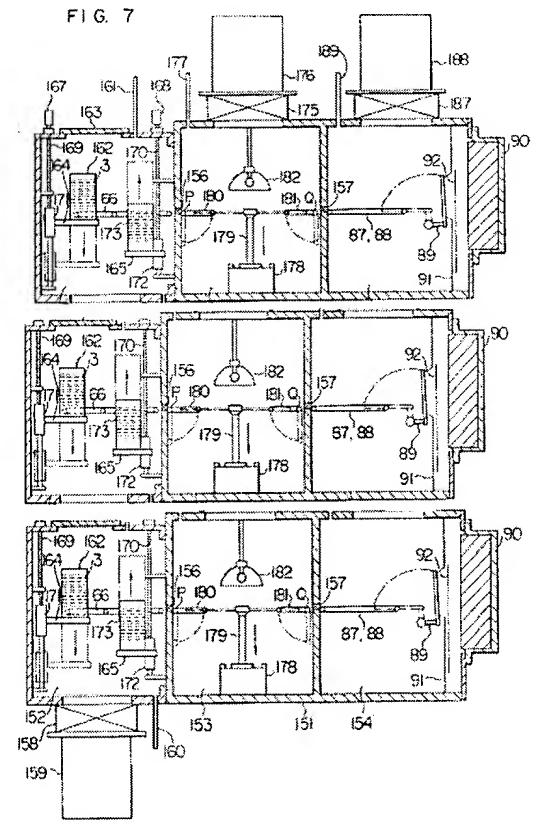
The Cited Prior Art References Fail to Teach All the Claim Limitations

Applicants respectfully submit that the cited prior art fails to teach all the claim limitations of the independent claims. Since independent claims 1 and 14 both include similar claim limitations directed to (1) modules being *detachably attached to the wall of a substrate transfer station independent of one another*; (2) a *common first substrate transfer device*; and (3) modules that are *spaced apart from one another*, the Office Action fails to establish a *prima facie* case of obviousness with respect to independent claims 1 and 14 because there are missing claim elements.

There Is No Motivation To Combine The Claim Features as Arranged by the Applicants

In addition to the missing claim elements, the Applicants respectfully submit that one skilled in the art would not be motivated by the Takagi reference to combine the claim features as arranged by the Applicants. More specifically, there is no motivation to *detachably attach or mount the modules of Fig. 7 to the wall of a substrate transfer section having a common first substrate transfer device*, as required by independent claims 1, 14. Instead, it is respectfully submitted that the Takagi reference would motivate one skilled in the art to simply stack the modules of Fig. 7, one on top of the other, as illustrated below in the hypothetical combination of Tateishi in view of Takagi.

The Hypothetical Vertically Stacked Systems of Tateishi in View of Takagi



The hypothetical combination of Tateishi in view of Takagi would include a plurality of “modules” having three substrate transfer devices, instead of **a common first substrate transfer device**. The “modules” of the hypothetical combination would not be **spaced separately from one another** in a substantially vertical direction, and the Applicants’ claimed spacing would be missing. Lastly, the hypothetical combination would not have modules that are **capable of being attached to and detached from a**

wall of said substrate transfer section independent of one another. The resulting stack of three Fig. 7 “modules” of Tateishi bears a striking resemblance to the stacked up “modules” of Takagi, instead of Applicants’ claimed invention which is illustrated in Fig. 1B.

The Applicants respectfully submit that the cited references would motivate the skilled artisan to combine the cited references into the hypothetical combination illustrated above and not into the invention of Applicants’ claims 1 and 14. The Applicants also respectfully submit that that the Office Action further fails to establish a *prima facie* case of obviousness with respect to independent claims 1 and 14, because there is no motivation to combine the references in the same way claimed by the Applicants.

Claims 2-13 and 15-36

The Applicants believe that dependent claims 2-13 and 15-36 are allowable over the cited prior art for at least the same reasons as the independent claims 1 and 14 from which they depend.

The Applicants Reply to the Examiner’s Comments on Applicants’ Prior Arguments

On page 20 of the Office Action, the Examiner commented on the Applicants’ prior arguments regarding Takagi’s lack of motivation to stack the “modules”. The Applicants want to point out that they did not argue that Takagi did not provide

motivation to stack “modules”. Instead, the Applicants argued that Takagi did not provide motivation to stack “modules” in the same way claimed by Applicants. More specifically, Applicants argued that Takagi does not provide motivation to stack “modules” which (1) are *detachably attached to the wall of a substrate transfer station independent of one another*; and (2) are *spaced apart from one another*.

On page 20 of the Office Action, the Examiner relies upon *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960) for the proposition that the reproduction of components is obvious. Applicants respectfully direct the Examiner’s attention to page 381 of *In re Harza* where the Court held,

We do not agree with board’s affirmation of claim 7. In this claim there exists an element which is neither disclosed in Gardner nor in Gardner in view of Roberts and Schurman, and two combinations of elements are not suggested by any combination of the references.

The Applicants respectfully submit that the claimed invention is not a mere reproduction of components and that there are claim features which are not suggested by any combination of the references. Accordingly, the Applicants believe that the Office Action’s reliance on *In re Harza* is misplaced.

On pages 20 and 21, the Examiner commented on the Applicants’ prior arguments regarding “a first common transfer device claimed by the Applicants”. The Applicants want to point out that the Examiner has interpreted “a common first substrate transfer device” to be a cassette elevator. The Applicants want to further point out that on page 17, lines 10-12 of the present application, Applicants disclose a transferring robot 20 that allows wafers 5 to be transferred to the two connection

modules 300. Even if the Examiner is correct that Takagi discloses a single *cassette* elevator, which is not readily apparent from the drawings, Takagi discloses three wafer transfer robots 14, which are readily apparent from the drawings. Accordingly, Takagi does not disclose a *common first substrate transfer device* of the type disclosed and claimed by the Applicants. The Applicants want to emphasize that they are claiming a common first **substrate** transfer device. They are not claiming a common first **cassette** transfer device, as alleged in the Office Action.

CONCLUSION

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and such allowance is respectfully solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Richard J. McGrath (Reg. No. 29,195), to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1. 17; particularly, extension of time fees.

Dated: October 4, 2005

Respectfully submitted

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